

Suggestions: 1) Please consult Sequence Rules for valid format.
2) FYI: all ~~U.S.~~ applications filed on or after July 1, 1998, which do not claim a prior U.S. application, need to be in new Sequence Rules format.

1636

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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657

DATE: 02/09/2000
TIME: 09:53:45

INPUT SET: S34681.raw

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

1 GENERAL INFORMATION SEQUENCE LISTING
2
3 (1) General Information: use upper-case letters Does Not Comply
4 Corrected Diskette Needed
5 (i) APPLICANTS: ↑ move up - for heading
6 (A) NAME: Peter Ruhdal Jensen
7 (B) STREET: Soegaardsvej 19 all responses must be on same
8 (C) CITY: Gentofte line as heading
9 (D) COUNTRY: Denmark
10 (E) POSTAL CODE (ZIP): DK-2820
11 U.S. filing ↑ move this under first applicant
12 (A) NAME: Karin Hammer
13 (B) STREET: Gaerdesmuttevej 20
14 (C) CITY: Hoersholm
15 (D) COUNTRY: Denmark
16 (E) POSTAL CODE (ZIP): DK-2970
17
18 (ii) TITLE OF INVENTION: Artificial promoter libraries for
19 selected ↑ move up
20 organisms and promoters derived from such libraries
21
22 (iii) NUMBER OF SEQUENCES: 58
23 (iv) COMPUTER READABLE FORM: (iv) CORRESPONDENCE ADDRESS section goes above
24 (A) MEDIUM TYPE: Floppy disk
25 (B) COMPUTER: IBM PC compatible
26 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
27 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (v) COMPUTER READABLE FORM: section
28
29 (EPO)
30
31 (iv) CORRESPONDENCE ADDRESS:
32 (A) ADDRESSEE: Stanislaus Aksman
33 Hunton & Williams
34 (B) STREET: 1900 K Street, NW
35 (C) CITY: Washington, DC (20006-1109)
36 (D) COUNTRY: USA Phone: (202) 955-1500
37 (E) ZIP: Facsimile: (202) 778-2201
38
39 (vi) CURRENT APPLICATION DATA:
40 (A) APPLICATION NUMBER: To Be Assigned
41 (B) FILING DATE IN THE US PTO: February 19, 1999
42 (C) ATTORNEY DOCKET NO.: 55411.000002
43 REFERENCE/DOCKET NUMBER! goes under
44 (vii) PRIOR APPLICATION DATA:
45 (A) APPLICATION NUMBER: DK 886/96 (viii) ATTORNEY/AGENT INFORMATION:

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:46

INPUT SET: S34681.raw

--> 46 (B) FILING DATE: 23-AUG-1996
47 (A) (C) PCT APPLICATION NUMBER: PCT/DK97/00342
48 (B) (D) FILING DATE: August 25, 1997
49

ERRORED SEQUENCES FOLLOW:

--> 50 (2) INFORMATION FOR SEQ ID NO: 1:
51
52 (i) SEQUENCE CHARACTERISTICS:
53 (A) LENGTH: 100 base pairs
54 (B) TYPE: nucleic acid
55 (C) STRANDEDNESS: double
56 (D) TOPOLOGY: linear
57
58 (ii) MOLECULE TYPE: DNA (genomic)
59
60 (iii) HYPOTHETICAL: YES
61
62 (iv) ANTI-SENSE: NO
63
64 (vi) ORIGINAL SOURCE:
65 (A) ORGANISM: Lactococcus lactis
66
67 (ix) FEATURE:
68 (A) NAME/KEY: promoter
69 (B) LOCATION:26..82
70 (C) IDENTIFICATION METHOD: experimental
71 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
72 /standard_name= "Artificial promoter library"
73 /note= "A degenerated sequence specifying a
74 mixture of
75 artificial promoters covering a wide range of
76 expression in
77 small steps in L. lactis"
78
79 (ix) FEATURE:
80 (A) NAME/KEY: misc_feature
81 (B) LOCATION:31..45
82 (D) OTHER INFORMATION:/standard_name= "Consensus
83 sequence"
84
85 (ix) FEATURE:
86 (A) NAME/KEY: misc_feature
87 (B) LOCATION:60..69
88 (D) OTHER INFORMATION:/standard_name= "Consensus
89 sequence"
90
91 (ix) FEATURE:
92 (A) NAME/KEY: misc_feature

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93 (B) LOCATION:74..82
94 (D) OTHER INFORMATION:/standard_name= "Consensus
95 sequence"
96
97 (ix) FEATURE:
98 (A) NAME/KEY: -35_signal
99 (B) LOCATION:40..45
100 (D) OTHER INFORMATION:/standard_name= "-35 box"
101
102 (ix) FEATURE:
103 (A) NAME/KEY: -10_signal
104 (B) LOCATION:63..68
105 (D) OTHER INFORMATION:/standard_name= "Pribnow box"
106
107 (ix) FEATURE:
108 (A) NAME/KEY: misc_recomb
109 (B) LOCATION:3..25
110 (C) IDENTIFICATION METHOD: experimental
111 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
112 /standard_name= "Multiple cloning site"
113 /label= MCS
114 /note= "A sequence specifying recognition sites
115 for the
116 restriction endonucleases: NlaIV, BstYI, BamHI,
117 AlwI, MboI,
118 DpnI, AflIII, MseI, SspI, NsiI."
119
120 (ix) FEATURE:
121 (A) NAME/KEY: misc_recomb
122 (B) LOCATION:74..98
123 (C) IDENTIFICATION METHOD: experimental
124 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
125 /standard_name= "Multiple cloning site"
126 /label= MCS
127 /note= "A sequence specifying recognition sites
128 for the
129 restriction endonucleases: ScaI, RsaI, HpaI,
130 HincII, MseI, SfcI,
131 PstI, Fnu4HI, BbvI, PvuII, NspBII, AluI, EcoRI."
132
133
134 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
135
136 CGGGATCCTT AAGAATATTA TGCATNNNNN AGTTTATTCT TGACANNNNN NNNNNNNNT
137 60
138
139 GGTATAATAN NANAGTACTG TTAAGTGCAG CTGAATTCGG
140 100
141
142 (2) INFORMATION FOR SEQ ID NO: 2:
143
144 (i) SEQUENCE CHARACTERISTICS:

See Item 1
on Env Summary
Sheet

global
format error

→ 60

→ 100

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```
--> 145      (A) LENGTH: 113 base pairs
146      (B) TYPE: nucleic acid
147      (C) STRANDEDNESS: double
148      (D) TOPOLOGY: linear
149
150      (ii) MOLECULE TYPE: DNA (genomic)
151
152      (iii) HYPOTHETICAL: YES
153
154      (iv) ANTI-SENSE: NO
155
156
157      (ix) FEATURE:
158          (A) NAME/KEY: promoter
159          (B) LOCATION:23..95
160          (D) OTHER INFORMATION:/standard_name= "Artificial
161              promoter library"
162              /note= "A degenerated sequence specifying a
163 mixture of
164             artificial temperature regulated promoters
165 covering a wide range
166             of expression in small steps in L. lactis"
167
168      (ix) FEATURE:
169          (A) NAME/KEY: misc_feature
170          (B) LOCATION:23..49
171          (D) OTHER INFORMATION:/standard_name= "Sequence
172 providing
173             temperature regulation to promoters"
174             /note= "This sequence comprising two inverted
175 repeats separated
176             by a short spacer provides temperature (heat
177 shock) regulation
178             to promoters in Gram-positive bacteria"
179
180      (ix) FEATURE:
181          (A) NAME/KEY: misc_feature
182          (B) LOCATION:50..60
183          (D) OTHER INFORMATION:/standard_name= "Consensus
184              sequence"
185
186      (ix) FEATURE:
187          (A) NAME/KEY: misc_feature
188          (B) LOCATION:75..84
189          (D) OTHER INFORMATION:/standard_name= "Consensus
190              sequence"
191
192      (ix) FEATURE:
193          (A) NAME/KEY: misc_feature
194          (B) LOCATION:89..95
195          (D) OTHER INFORMATION:/standard_name= "Consensus
196              sequence"
197
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198 (ix) FEATURE:
199 (A) NAME/KEY: -35_signal
200 (B) LOCATION:55..60
201 (D) OTHER INFORMATION:/standard_name= "-35 box"
202
203 (ix) FEATURE:
204 (A) NAME/KEY: -10_signal
205 (B) LOCATION:78..83
206 (D) OTHER INFORMATION:/standard_name= "Pribnow box"
207
208 (ix) FEATURE:
209 (A) NAME/KEY: misc_recomb
210 (B) LOCATION:3..22
211 (D) OTHER INFORMATION:/standard_name= "Multiple cloning
212 site"
213 /label= MCS
214 /note= "A sequence specifying recognition sites
215 for the
216 restriction endonucleases: NlaIV, BstYI, BamHI,
217 AlwI, MboI,
218 DpnI, HindIII, AluI, MseI (2 sites), SspI,
219 AseI."
220
221 (ix) FEATURE:
222 (A) NAME/KEY: misc_recomb
223 (B) LOCATION:89..111
224 (D) OTHER INFORMATION:/standard_name= "Multiple cloning
225 site"
226 /label= MCS
227 /note= "A sequence specifying recognition sites
228 for the
229 restriction endonucleases: ScaI, RsaI, SfcI,
230 PstI, Fnu4HI, BbvI,
231 PvuII, NspBII, AluI, XbaI, MaeI, EcoRI, ApoI."
232
233
234 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
235
236 CGGGATCCAA GCTTAATATT AATTAGCACT CNNNNNNNNN GAGTGCTAAT TTTTTTGACA
237 60
238
239 NNNNNNNNNN NNNNTGGTAT AATANNANAG TACTGCAGCT GTCTAGAATT CGG
240 113
241

*same
format
error*

242 (2) INFORMATION FOR SEQ ID NO: 3:
243
244 (i) SEQUENCE CHARACTERISTICS:
245 (A) LENGTH: 199 base pairs
246 (B) TYPE: nucleic acid
247 (C) STRANDEDNESS: double
248 (D) TOPOLOGY: linear
249

-->

RAW SEQUENCE LISTING
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250 (ii) MOLECULE TYPE: DNA (genomic)
251
252 (iii) HYPOTHETICAL: YES
253
254 (iv) ANTI-SENSE: NO
255
256 (vi) ORIGINAL SOURCE:
257 (A) ORGANISM: Saccharomyces cerevisiae
258
259 (ix) FEATURE:
260 (A) NAME/KEY: protein_bind
261 (B) LOCATION:10..16
262 (D) OTHER INFORMATION:/function= "Activating promoters
263 in
264 S. cerevisiae"
265 /bound_moiety= "GCN4 protein"
266 /standard_name= "Upstream activating sequence"
267 /label= UAS_GCN4p
268 /note= "A DNA sequence that specifies a binding
269 site for the
270 GCN4 protein, which activates the transcription
271 of genes
272 involved in aminoacid synthesis in S.
273 cerevisiae."
274
275 (ix) FEATURE: *insert space*
276 (A) NAME/KEY: TATA_signal
277 (B) LOCATION:67..72
278 (D) OTHER INFORMATION:/standard_name= "TATA box"
279
280 (ix) FEATURE:
281 (A) NAME/KEY: misc_signal
282 (B) LOCATION:122..144
283 (D) OTHER INFORMATION:/function= "Transcription
284 initiation"
285 /standard_name= "TI box"
286
287 (ix) FEATURE:
288 (A) NAME/KEY: protein_bind
289 (B) LOCATION:122..144
290 (D) OTHER INFORMATION:/bound_moiety= "Arginine
291 repressor"
292 /standard_name= "arginine repressor binding
293 site"
294 /label= argR
295
296 (ix) FEATURE:
297 (A) NAME/KEY: misc_RNA
298 (B) LOCATION:145..192
299 (D) OTHER INFORMATION:/function= "Spacer"
300 /standard_name= "Part of native sequence for
301 ARG8
302 gene incl. first codon"

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303
304 (ix) FEATURE:
305 (A) NAME/KEY: misc_recomb
306 (B) LOCATION:3..8
307 (D) OTHER INFORMATION:/standard_name= "Recognition site
308 for restriction endonuclease EcoRI"
309 /label= EcoRI_site
310

311 (ix) FEATURE:
312 (A) NAME/KEY: misc_recomb
313 (B) LOCATION:192..197
314 (D) OTHER INFORMATION:/standard_name= "Recognition site
315 for restriction endonuclease BamHI"
316 /label= BamHI_site
317

318 (ix) FEATURE:
319 (A) NAME/KEY: promoter
320 (B) LOCATION:10..192
321 (D) OTHER INFORMATION:/standard_name= "Artificial
322 promoter library"
323 /note= "A degenerated sequence specifying a
324 mixture of
325 artificial promoters covering a wide range of
326 expression in
327 small steps in S. cerevisiae"
328
329

330 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

331
332 CAGAATTCGT GACTCANNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
333 60
334
335 NNNNNNNNNN NNNNNNTATA AANNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
336 120
337
338 NCTCTTAAGT GCAAGTGACT GCGAACATTT TTTTCGTTTG TTAGAATAAT TCAAGAATCG
339 180
340
341 CTACCAATCA TGGATCCCG
342 199
343

*same
err*

344 (2) INFORMATION FOR SEQ ID NO: 4:

345

346 (i) SEQUENCE CHARACTERISTICS:

347 (A) LENGTH: 45 base pairs

348 (B) TYPE: nucleic acid

349 (C) STRANDEDNESS: double

350 (D) TOPOLOGY: linear

351

352 (ii) MOLECULE TYPE: DNA (genomic)

353

354 (iii) HYPOTHETICAL: YES

-->

RAW SEQUENCE LISTING
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TIME: 09:53:48

INPUT SET: S34681.raw

355
356 (iv) ANTI-SENSE: NO
357
358 (vi) ORIGINAL SOURCE:
359 (A) ORGANISM: Pseudomonas putida
360
361 (ix) FEATURE:
362 (A) NAME/KEY: promoter
363 (B) LOCATION:1..45
364 (C) IDENTIFICATION METHOD: experimental
365 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
366 /standard_name= "Artificial promoter library"
367 /note= "A degenerated sequence specifying a
368 mixture of
369 artificial promoterscovering a wide range of
370 expression in small
371 steps Pseudomonas putida"
372
373
374 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
375
376 NNNNNNNNTT GRNNNNNNNNN NNNNNNNNNN NTATRATNNN NNNNN
377 45
378

same

379 (2) INFORMATION FOR SEQ ID NO: 5:
380
381 (i) SEQUENCE CHARACTERISTICS:
--> 382 (A) LENGTH: 60 base pairs
383 (B) TYPE: nucleic acid
384 (C) STRANDEDNESS: double
385 (D) TOPOLOGY: linear
386
387 (ii) MOLECULE TYPE: DNA (genomic)
388
389 (iii) HYPOTHETICAL: YES
390
391 (iv) ANTI-SENSE: NO
392
393 (vi) ORIGINAL SOURCE:
394 (A) ORGANISM: Lactococcus lactis
395
396 (ix) FEATURE:
397 (A) NAME/KEY: promoter
398 (B) LOCATION:4..60
399 (D) OTHER INFORMATION:/standard_name= "Constitutional
400 promoter"
401 /label= Cp1
402
403
404 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
405
406 CATACCGGAG TTTATTCTTG ACAGTTCAC CTCGGGTTGA TATAATATCT CAGTACTGTT

same

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TIME: 09:53:48

INPUT SET: S34681.raw

407 60
408
409

--> 410 (2) INFORMATION FOR SEQ ID NO: 6:
411
412 (i) SEQUENCE CHARACTERISTICS:
413 (A) LENGTH: 60 base pairs
414 (B) TYPE: nucleic acid
415 (C) STRANDEDNESS: double
416 (D) TOPOLOGY: linear
417
418 (ii) MOLECULE TYPE: DNA (genomic)
419
420 (iii) HYPOTHETICAL: YES
421
422 (iv) ANTI-SENSE: NO
423
424 (vi) ORIGINAL SOURCE:
425 (A) ORGANISM: Lactococcus lactis
426
427 (ix) FEATURE:
428 (A) NAME/KEY: promoter
429 (B) LOCATION: 4..60
430 (D) OTHER INFORMATION: /standard_name= "Constitutional
431 promoter"
432 /label= Cp10
433
434
435 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
436
437 CATGGCTTAG TTTATTCTTG ACAGGGTAGT ATCACTGTGA TATAATAGGA CAGTACTGTT
438 60
439
440

--> 441 (2) INFORMATION FOR SEQ ID NO: 7:
442
443 (i) SEQUENCE CHARACTERISTICS:
444 (A) LENGTH: 59 base pairs
445 (B) TYPE: nucleic acid
446 (C) STRANDEDNESS: double
447 (D) TOPOLOGY: linear
448
449 (ii) MOLECULE TYPE: DNA (genomic)
450
451 (iii) HYPOTHETICAL: YES
452
453 (iv) ANTI-SENSE: NO
454
455 (vi) ORIGINAL SOURCE:
456 (A) ORGANISM: Lactococcus lactis
457

same

RAW SEQUENCE LISTING
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INPUT SET: S34681.raw

458 (ix) FEATURE:
459 (A) NAME/KEY: promoter
460 (B) LOCATION:4..59
461 (D) OTHER INFORMATION:/standard_name= "Constitutional
462 promoter"
463 /label= Cp11
464
465
466 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
467
468 CATAAGTGAG TTTATTCTTG ACCCGGACGC CCCCTTTGA TATAATAAGT AGTACTGTT
469 59
470

same

471 (2) INFORMATION FOR SEQ ID NO: 8:
472
473 (i) SEQUENCE CHARACTERISTICS:
--> 474 (A) LENGTH: 60 base pairs
475 (B) TYPE: nucleic acid
476 (C) STRANDEDNESS: double
477 (D) TOPOLOGY: linear
478
479 (ii) MOLECULE TYPE: DNA (genomic)
480
481 (iii) HYPOTHETICAL: YES
482
483 (iv) ANTI-SENSE: NO
484
485 (vi) ORIGINAL SOURCE:
486 (A) ORGANISM: Lactococcus lactis
487
488 (ix) FEATURE:
489 (A) NAME/KEY: promoter
490 (B) LOCATION:4..60
491 (D) OTHER INFORMATION:/standard_name= "Constitutional
492 promoter"
493 /label= Cp12
494
495
496 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
497
498 CATATACAAG TTTATTCTTG AACTAGTCG GCCAAATGA TATAATACCT GAGTACTGTT
499 60
500
501

same

502 (2) INFORMATION FOR SEQ ID NO: 9:
503
504 (i) SEQUENCE CHARACTERISTICS:
--> 505 (A) LENGTH: 60 base pairs
506 (B) TYPE: nucleic acid
507 (C) STRANDEDNESS: double
508 (D) TOPOLOGY: linear

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509
510 (ii) MOLECULE TYPE: DNA (genomic)
511
512 (iii) HYPOTHETICAL: YES
513
514 (iv) ANTI-SENSE: NO
515
516 (vi) ORIGINAL SOURCE:
517 (A) ORGANISM: Lactococcus lactis
518
519 (ix) FEATURE:
520 (A) NAME/KEY: promoter
521 (B) LOCATION: 4..60
522 (D) OTHER INFORMATION: /standard_name= "Constitutional
523 promoter"
524 /label= Cp13
525
526
527 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
528
529 CATGCTTTAC TTTATTCTTG ACAAACCAC CAGCTTTTGG TATAATACGT GAGAACTGTT
530 60
531
532

Name

533 (2) INFORMATION FOR SEQ ID NO: 10:
534
535 (i) SEQUENCE CHARACTERISTICS:
--> 536 (A) LENGTH: 60 base pairs
537 (B) TYPE: nucleic acid
538 (C) STRANDEDNESS: double
539 (D) TOPOLOGY: linear
540
541 (ii) MOLECULE TYPE: DNA (genomic)
542
543 (iii) HYPOTHETICAL: YES
544
545 (iv) ANTI-SENSE: NO
546
547 (vi) ORIGINAL SOURCE:
548 (A) ORGANISM: Lactococcus lactis
549
550 (ix) FEATURE:
551 (A) NAME/KEY: promoter
552 (B) LOCATION: 4..60
553 (D) OTHER INFORMATION: /standard_name= "Constitutional
554 promoter"
555 /label= Cp14
556
557
558 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
559
560 CATGACGGAG TTTATTCTTG ACACAGGTAT GGACTTATGA TATAATAAAA CAGTACTGTT

Name

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INPUT SET: S34681.raw

561 60
562
563

564 (2) INFORMATION FOR SEQ ID NO: 11:

565

566 (i) SEQUENCE CHARACTERISTICS:

-->

567 (A) LENGTH: 60 base pairs

568 (B) TYPE: nucleic acid

569 (C) STRANDEDNESS: double

570 (D) TOPOLOGY: linear

571

572 (ii) MOLECULE TYPE: DNA (genomic)

573

574 (iii) HYPOTHETICAL: YES

575

576 (iv) ANTI-SENSE: NO

577

578 (vi) ORIGINAL SOURCE:

579 (A) ORGANISM: Lactococcus lactis

580

581 (ix) FEATURE:

582 (A) NAME/KEY: promoter

583 (B) LOCATION: 4...60

584 (D) OTHER INFORMATION: /standard_name= "Constitutional

585 promoter"

586 /label= Cp15

587

588

589 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

590

591 CATTACNTAG TTNATTCTTG ACAGAATTAC GATTCGCTGG TATAATATAT CAGTACTGTT

592 60

593

594

595 (2) INFORMATION FOR SEQ ID NO: 12:

596

597 (i) SEQUENCE CHARACTERISTICS:

-->

598 (A) LENGTH: 58 base pairs

599 (B) TYPE: nucleic acid

600 (C) STRANDEDNESS: double

601 (D) TOPOLOGY: linear

602

603 (ii) MOLECULE TYPE: DNA (genomic)

604

605 (iii) HYPOTHETICAL: YES

606

607 (iv) ANTI-SENSE: NO

608

609 (vi) ORIGINAL SOURCE:

610 (A) ORGANISM: Lactococcus lactis

611

same

RAW SEQUENCE LISTING
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INPUT SET: S34681.raw

612 (ix) FEATURE:
613 (A) NAME/KEY: promoter
614 (B) LOCATION:4..58
615 (D) OTHER INFORMATION:/standard_name= "Constitutional
616 promoter"
617 /label= Cp16
618
619

620 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

621
622 CATTGTGTAG TTTATTCTTG ACAGCTATGA GTCAATTGG TATAATAACA GTACTCAG
623 58
624

same

625 (2) INFORMATION FOR SEQ ID NO: 13:

626

627 (i) SEQUENCE CHARACTERISTICS:

--> 628 (A) LENGTH: 59 base pairs
629 (B) TYPE: nucleic acid
630 (C) STRANDEDNESS: double
631 (D) TOPOLOGY: linear
632

633 (ii) MOLECULE TYPE: DNA (genomic)

634

635 (iii) HYPOTHETICAL: YES

636

637 (iv) ANTI-SENSE: NO

638

639 (vi) ORIGINAL SOURCE:

640 (A) ORGANISM: Lactococcus lactis

641

642 (ix) FEATURE:

643 (A) NAME/KEY: promoter

644 (B) LOCATION:4..59

645 (D) OTHER INFORMATION:/standard_name= "Constitutional
646 promoter"
647 /label= Cp17
648

649

650 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

651

652 CATTCTGGAG TTTATTCTTG ACCGCTCAGT ATGCAGTGGT ATAATAGTAC AGTACTGTT
653 59
654

same

655 (2) INFORMATION FOR SEQ ID NO: 14:

656

657 (i) SEQUENCE CHARACTERISTICS:

--> 658 (A) LENGTH: 58 base pairs
659 (B) TYPE: nucleic acid
660 (C) STRANDEDNESS: double
661 (D) TOPOLOGY: linear
662

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663 (ii) MOLECULE TYPE: DNA (genomic)
664
665 (iii) HYPOTHETICAL: YES
666
667 (iv) ANTI-SENSE: NO
668
669 (vi) ORIGINAL SOURCE:
670 (A) ORGANISM: Lactococcus lactis
671
672 (ix) FEATURE:
673 (A) NAME/KEY: promoter
674 (B) LOCATION:4..58
675 (D) OTHER INFORMATION:/standard_name= "Constitutional
676 promoter"
677 /label= Cp18
678
679
680 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
681
682 CATTTTGCAG TTTATTCTTG ACATTGTGTG CTTCGGGTGT ATAATACTAA GTACTGTT
683 58
684

same

--> 685 (2) INFORMATION FOR SEQ ID NO: 15:
686
687 (i) SEQUENCE CHARACTERISTICS:
688 (A) LENGTH: 58 base pairs
689 (B) TYPE: nucleic acid
690 (C) STRANDEDNESS: double
691 (D) TOPOLOGY: linear
692
693 (ii) MOLECULE TYPE: DNA (genomic)
694
695 (iii) HYPOTHETICAL: YES
696
697 (iv) ANTI-SENSE: NO
698
699 (vi) ORIGINAL SOURCE:
700 (A) ORGANISM: Lactococcus lactis
701
702 (ix) FEATURE:
703 (A) NAME/KEY: promoter
704 (B) LOCATION:4..58
705 (D) OTHER INFORMATION:/standard_name= "Constitutional
706 promoter"
707 /label= Cp19
708
709
710 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
711
712 CATCGCTTAG TTTTCTTGA CAGGAGGGAT CCGGGTTGAT ATAATAGTTA GTACTGTT
713 58
714

same

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:50

INPUT SET: S34681.raw

715 (2) INFORMATION FOR SEQ ID NO: 16:
716
717 (i) SEQUENCE CHARACTERISTICS:
--> 718 (A) LENGTH: 60 base pairs
719 (B) TYPE: nucleic acid
720 (C) STRANDEDNESS: double
721 (D) TOPOLOGY: linear
722
723 (ii) MOLECULE TYPE: DNA (genomic)
724
725 (iii) HYPOTHETICAL: YES
726
727 (iv) ANTI-SENSE: NO
728
729 (vi) ORIGINAL SOURCE:
730 (A) ORGANISM: Lactococcus lactis
731
732 (ix) FEATURE:
733 (A) NAME/KEY: promoter
734 (B) LOCATION:4..60
735 (D) OTHER INFORMATION:/standard_name= "Constitutional
736 promoter"
737 /label= Cp2
738
739
740 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
741
742 CATTGCTAG TTTATTCTTG ACATGAAGCG TGCCTAATGG TATATTACTT GAGTACTGTT
743 60
744
745

746 (2) INFORMATION FOR SEQ ID NO: 17:
747
748 (i) SEQUENCE CHARACTERISTICS:
--> 749 (A) LENGTH: 60 base pairs
750 (B) TYPE: nucleic acid
751 (C) STRANDEDNESS: double
752 (D) TOPOLOGY: linear
753
754 (ii) MOLECULE TYPE: DNA (genomic)
755
756 (iii) HYPOTHETICAL: YES
757
758 (iv) ANTI-SENSE: NO
759
760 (vi) ORIGINAL SOURCE:
761 (A) ORGANISM: Lactococcus lactis
762
763 (ix) FEATURE:
764 (A) NAME/KEY: promoter
765 (B) LOCATION:4..60

Name

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:51

INPUT SET: S34681.raw

766 (D) OTHER INFORMATION:/standard_name= "Constitutional
767 promoter"
768 /label= Cp20
769
770
771 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
772
773 CATGGGTGAG TTTATTCTTG ACAGTGC GGC CNGGGGCTGA TATCATAGCA GAGTACTATT
774 60
775
776

--> 777 (2) INFORMATION FOR SEQ ID NO: 18:
778
779 (i) SEQUENCE CHARACTERISTICS:
780 (A) LENGTH: 59 base pairs
781 (B) TYPE: nucleic acid
782 (C) STRANDEDNESS: double
783 (D) TOPOLOGY: linear
784
785 (ii) MOLECULE TYPE: DNA (genomic)
786
787 (iii) HYPOTHETICAL: YES
788
789 (iv) ANTI-SENSE: NO
790
791 (vi) ORIGINAL SOURCE:
792 (A) ORGANISM: Lactococcus lactis
793
794 (ix) FEATURE:
795 (A) NAME/KEY: promoter
796 (B) LOCATION: 4..59
797 (D) OTHER INFORMATION:/standard_name= "Constitutional
798 promoter"
799 /label= Cp21
800
801
802 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:
803
804 CATTACCGAG TTTATTCTTG ACACCGTTTA TCGGGGTTGT ATAATACTAT AGTACTGTT
805 59
806

--> 807 (2) INFORMATION FOR SEQ ID NO: 19:
808
809 (i) SEQUENCE CHARACTERISTICS:
810 (A) LENGTH: 60 base pairs
811 (B) TYPE: nucleic acid
812 (C) STRANDEDNESS: double
813 (D) TOPOLOGY: linear
814
815 (ii) MOLECULE TYPE: DNA (genomic)
816

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:51

INPUT SET: S34681.raw

817 (iii) HYPOTHETICAL: YES
818
819 (iv) ANTI-SENSE: NO
820
821 (vi) ORIGINAL SOURCE:
822 (A) ORGANISM: Lactococcus lactis
823
824 (ix) FEATURE:
825 (A) NAME/KEY: promoter
826 (B) LOCATION:4..60
827 (D) OTHER INFORMATION:/standard_name= "Constitutional
828 promoter"
829 /label= Cp23
830
831
832 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:
833
834 CATGTAGGAG TTTATTCTTG ACAGATTAGT TAGGGGGTGG TATAATATCT CAGTACTGTT
835 60
836
837

--> 838 (2) INFORMATION FOR SEQ ID NO: 20:
839
840 (i) SEQUENCE CHARACTERISTICS:
841 (A) LENGTH: 60 base pairs
842 (B) TYPE: nucleic acid
843 (C) STRANDEDNESS: double
844 (D) TOPOLOGY: linear
845
846 (ii) MOLECULE TYPE: DNA (genomic)
847
848 (iii) HYPOTHETICAL: YES
849
850 (iv) ANTI-SENSE: NO
851
852 (vi) ORIGINAL SOURCE:
853 (A) ORGANISM: Lactococcus lactis
854
855 (ix) FEATURE:
856 (A) NAME/KEY: promoter
857 (B) LOCATION:4..60
858 (D) OTHER INFORMATION:/standard_name= "Constitutional
859 promoter"
860 /label= Cp24
861
862
863 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:
864
865 CATGGGTAAG TTTATTCTTC AACTATCTG GGCCCGATGG TATAATAAGT GACTACTGTT
866 60
867
868

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:51

INPUT SET: S34681.raw

869 (2) INFORMATION FOR SEQ ID NO: 21:
870
871 (i) SEQUENCE CHARACTERISTICS:
--> 872 (A) LENGTH: 59 base pairs
873 (B) TYPE: nucleic acid
874 (C) STRANDEDNESS: double
875 (D) TOPOLOGY: linear
876
877 (ii) MOLECULE TYPE: DNA (genomic)
878
879 (iii) HYPOTHETICAL: YES
880
881 (iv) ANTI-SENSE: NO
882
883 (vi) ORIGINAL SOURCE:
884 (A) ORGANISM: Lactococcus lactis
885
886 (ix) FEATURE:
887 (A) NAME/KEY: promoter
888 (B) LOCATION:3..59
889 (D) OTHER INFORMATION:/standard_name= "Constitutional
890 promoter"
891 /label= Cp25
892
893
894 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:
895
896 CTTTGGCAGT TTATTCTTGA CATGTAGTGA GGGGGCTGGT ATAATCACAT AGTACTGTT
897 59
898

899 (2) INFORMATION FOR SEQ ID NO: 22:
900
901 (i) SEQUENCE CHARACTERISTICS:
--> 902 (A) LENGTH: 60 base pairs
903 (B) TYPE: nucleic acid
904 (C) STRANDEDNESS: double
905 (D) TOPOLOGY: linear
906
907 (ii) MOLECULE TYPE: DNA (genomic)
908
909 (iii) HYPOTHETICAL: YES
910
911 (iv) ANTI-SENSE: NO
912
913 (vi) ORIGINAL SOURCE:
914 (A) ORGANISM: Lactococcus lactis
915
916 (ix) FEATURE:
917 (A) NAME/KEY: promoter
918 (B) LOCATION:4..60
919 (D) OTHER INFORMATION:/standard_name= "Constitutional

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:52

INPUT SET: S34681.raw

920 promoter"
921 /label= Cp26
922
923
924 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
925
926 CATTCTACAG TTTATTCTTG ACATTGCACT GTCCCCCTGG TATAATAACT ATACATGCAT
927 60
928
929

same

930 (2) INFORMATION FOR SEQ ID NO: 23:
931
932 (i) SEQUENCE CHARACTERISTICS:
--> 933 (A) LENGTH: 60 base pairs
934 (B) TYPE: nucleic acid
935 (C) STRANDEDNESS: double
936 (D) TOPOLOGY: linear
937
938 (ii) MOLECULE TYPE: DNA (genomic)
939
940 (iii) HYPOTHETICAL: YES
941
942 (iv) ANTI-SENSE: NO
943
944 (vi) ORIGINAL SOURCE:
945 (A) ORGANISM: Lactococcus lactis
946
947 (ix) FEATURE:
948 (A) NAME/KEY: promoter
949 (B) LOCATION: 4..60
950 (D) OTHER INFORMATION: /standard_name= "Constitutional
951 promoter"
952 /label= Cp28
953
954

955 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:
956
957 CATGGGGCCG TTTATTCTTG ACAACGGCGA GCAGACCTGG TATAATAATA TAGTACTGTT
958 60
959
960

same

961 (2) INFORMATION FOR SEQ ID NO: 24:
962
963 (i) SEQUENCE CHARACTERISTICS:
--> 964 (A) LENGTH: 59 base pairs
965 (B) TYPE: nucleic acid
966 (C) STRANDEDNESS: double
967 (D) TOPOLOGY: linear
968
969 (ii) MOLECULE TYPE: DNA (genomic)
970

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:52

INPUT SET: S34681.raw

971 (iii) HYPOTHETICAL: YES
972
973 (iv) ANTI-SENSE: NO
974
975 (vi) ORIGINAL SOURCE:
976 (A) ORGANISM: Lactococcus lactis
977
978 (ix) FEATURE:
979 (A) NAME/KEY: promoter
980 (B) LOCATION:4..59
981 (D) OTHER INFORMATION:/standard_name= "Constitutional
982 promoter"
983 /label= Cp29
984
985
986 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:
987
988 CATCGGTAAG TTATTCTTGA CATCTCAGGG GGGACGTGGT ATAATAACTG AGTACTGTT
989 59
990

Same

-->

991 (2) INFORMATION FOR SEQ ID NO: 25:
992
993 (i) SEQUENCE CHARACTERISTICS:
994 (A) LENGTH: 60 base pairs
995 (B) TYPE: nucleic acid
996 (C) STRANDEDNESS: double
997 (D) TOPOLOGY: linear
998
999 (ii) MOLECULE TYPE: DNA (genomic)
1000
1001 (iii) HYPOTHETICAL: YES
1002
1003 (iv) ANTI-SENSE: NO
1004
1005 (vi) ORIGINAL SOURCE:
1006 (A) ORGANISM: Lactococcus lactis
1007
1008 (ix) FEATURE:
1009 (A) NAME/KEY: promoter
1010 (B) LOCATION:4..60
1011 (D) OTHER INFORMATION:/standard_name= "Constitutional
1012 promoter"
1013 /label= Cp3
1014
1015
1016 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:
1017
1018 CATCCTGTAG TTTATTCTTG ACACACGTNN TTAGCTGTGG TATAATAGGA GAGTACTGTT
1019 60
1020
1021

Same

1022 (2) INFORMATION FOR SEQ ID NO: 26:

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:52

INPUT SET: S34681.raw

1023
1024 (i) SEQUENCE CHARACTERISTICS:
--> 1025 (A) LENGTH: 60 base pairs
1026 (B) TYPE: nucleic acid
1027 (C) STRANDEDNESS: double
1028 (D) TOPOLOGY: linear
1029
1030 (ii) MOLECULE TYPE: DNA (genomic)
1031
1032 (iii) HYPOTHETICAL: YES
1033
1034 (iv) ANTI-SENSE: NO
1035
1036 (vi) ORIGINAL SOURCE:
1037 (A) ORGANISM: Lactococcus lactis
1038
1039 (ix) FEATURE:
1040 (A) NAME/KEY: promoter
1041 (B) LOCATION:4..60
1042 (D) OTHER INFORMATION:/standard_name= "Constitutional
1043 promoter"
1044 /label= Cp30
1045
1046
1047 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:
1048
1049 CATGACAGAG TTTATTCTTG ACAGTATTGG GTTACTTTGG TATAATAGTT GAGTACTGTT
1050 60
1051
1052

1053 (2) INFORMATION FOR SEQ ID NO: 27:
1054
1055 (i) SEQUENCE CHARACTERISTICS:
--> 1056 (A) LENGTH: 60 base pairs
1057 (B) TYPE: nucleic acid
1058 (C) STRANDEDNESS: double
1059 (D) TOPOLOGY: linear
1060
1061 (ii) MOLECULE TYPE: DNA (genomic)
1062
1063 (iii) HYPOTHETICAL: YES
1064
1065 (iv) ANTI-SENSE: NO
1066
1067 (vi) ORIGINAL SOURCE:
1068 (A) ORGANISM: Lactococcus lactis
1069
1070 (ix) FEATURE:
1071 (A) NAME/KEY: promoter
1072 (B) LOCATION:4..60
1073 (D) OTHER INFORMATION:/standard_name= "Constitutional
1074 promoter"

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:53

INPUT SET: S34681.raw

1075 /label= Cp32

1076

1077

1078 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

1079

1080 CATACGGGAG TTTATTCTTG ACATATTGCC GGTGTGTTGG TATAATAACT TAGTACTGTT

1081 60

1082

1083

same

1084 (2) INFORMATION FOR SEQ ID NO: 28:

1085

1086 (i) SEQUENCE CHARACTERISTICS:

--> 1087 (A) LENGTH: 60 base pairs

1088 (B) TYPE: nucleic acid

1089 (C) STRANDEDNESS: double

1090 (D) TOPOLOGY: linear

1091

1092 (ii) MOLECULE TYPE: DNA (genomic)

1093

1094 (iii) HYPOTHETICAL: YES

1095

1096 (iv) ANTI-SENSE: NO

1097

1098 (vi) ORIGINAL SOURCE:

1099 (A) ORGANISM: Lactococcus lactis

1100

1101 (ix) FEATURE:

1102 (A) NAME/KEY: promoter

1103 (B) LOCATION: 4..60

1104 (D) OTHER INFORMATION: /standard_name= "Constitutional
1105 promoter"

1106 /label= Cp33

1107

1108

1109 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

1110

1111 CATGTTGGAG TTTATTCTTG ACATACAATT ACTGCAGTGA TATAATAGGT GAGTACTGTT

1112 60

1113

1114

same

1115 (2) INFORMATION FOR SEQ ID NO: 29:

1116

1117 (i) SEQUENCE CHARACTERISTICS:

--> 1118 (A) LENGTH: 60 base pairs

1119 (B) TYPE: nucleic acid

1120 (C) STRANDEDNESS: double

1121 (D) TOPOLOGY: linear

1122

1123 (ii) MOLECULE TYPE: DNA (genomic)

1124

1125 (iii) HYPOTHETICAL: YES

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:53

INPUT SET: S34681.raw

1126
1127 (iv) ANTI-SENSE: NO
1128
1129 (vi) ORIGINAL SOURCE:
1130 (A) ORGANISM: Lactococcus lactis
1131
1132 (ix) FEATURE:
1133 (A) NAME/KEY: promoter
1134 (B) LOCATION:4..60
1135 (D) OTHER INFORMATION:/standard_name= "Constitutional
1136 promoter"
1137 /label= Cp34
1138
1139
1140 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:
1141
1142 CATCGCGAAG TTTATTCTTC ACACACCGCA GAACTTGTGG TATAATACAA CAGTACTGTT
1143 60
1144
1145

same

1146 (2) INFORMATION FOR SEQ ID NO: 30:
1147
1148 (i) SEQUENCE CHARACTERISTICS:
--> 1149 (A) LENGTH: 59 base pairs
1150 (B) TYPE: nucleic acid
1151 (C) STRANDEDNESS: double
1152 (D) TOPOLOGY: linear
1153
1154 (ii) MOLECULE TYPE: DNA (genomic)
1155
1156 (iii) HYPOTHETICAL: YES
1157
1158 (iv) ANTI-SENSE: NO
1159
1160 (vi) ORIGINAL SOURCE:
1161 (A) ORGANISM: Lactococcus lactis
1162
1163 (ix) FEATURE:
1164 (A) NAME/KEY: promoter
1165 (B) LOCATION:4..59
1166 (D) OTHER INFORMATION:/standard_name= "Constitutional
1167 promoter"
1168 /label= Cp37
1169
1170
1171 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:
1172
1173 CATCATTAAG TTTATTCTTC ACATTGGCCG GAATTGTTGT ATAATACCTT AGTACTGTT
1174 59
1175

same

1176 (2) INFORMATION FOR SEQ ID NO: 31:

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:53

INPUT SET: S34681.raw

1177
1178 (i) SEQUENCE CHARACTERISTICS:
--> 1179 (A) LENGTH: 60 base pairs
1180 (B) TYPE: nucleic acid
1181 (C) STRANDEDNESS: double
1182 (D) TOPOLOGY: linear
1183
1184 (ii) MOLECULE TYPE: DNA (genomic)
1185
1186 (iii) HYPOTHETICAL: YES
1187
1188 (iv) ANTI-SENSE: NO
1189
1190 (vi) ORIGINAL SOURCE:
1191 (A) ORGANISM: Lactococcus lactis
1192
1193 (ix) FEATURE:
1194 (A) NAME/KEY: promoter
1195 (B) LOCATION:4..60
1196 (D) OTHER INFORMATION:/standard_name= "Constitutional
1197 promoter"
1198 /label= Cp38
1199
1200
1201 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:
1202
1203 CATAGAGAAG TTTATTCTTG ACAGCTAACT TGGCCTTTGA TATAATACAT GAGTACTGTT
1204 60
1205
1206

same

1207 (2) INFORMATION FOR SEQ ID NO: 32:
1208
1209 (i) SEQUENCE CHARACTERISTICS:
--> 1210 (A) LENGTH: 60 base pairs
1211 (B) TYPE: nucleic acid
1212 (C) STRANDEDNESS: double
1213 (D) TOPOLOGY: linear
1214
1215 (ii) MOLECULE TYPE: DNA (genomic)
1216
1217 (iii) HYPOTHETICAL: YES
1218
1219 (iv) ANTI-SENSE: NO
1220
1221 (vi) ORIGINAL SOURCE:
1222 (A) ORGANISM: Lactococcus lactis
1223
1224 (ix) FEATURE:
1225 (A) NAME/KEY: promoter
1226 (B) LOCATION:4..60
1227 (D) OTHER INFORMATION:/standard_name= "Constitutional
1228 promoter"

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
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INPUT SET: S34681.raw

1229 /label= Cp39

1230

1231

1232 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

1233

1234 CATTGCGAAG TTTATTCTTG ACAGTACGTT TTTACCATGA TATAATAGTA TAGTACTGTT

1235 60

1236

1237

Same

1238 (2) INFORMATION FOR SEQ ID NO: 33:

1239

(i) SEQUENCE CHARACTERISTICS:

--> 1241 (A) LENGTH: 60 base pairs

1242 (B) TYPE: nucleic acid

1243 (C) STRANDEDNESS: double

1244 (D) TOPOLOGY: linear

1245

1246 (ii) MOLECULE TYPE: DNA (genomic)

1247

1248 (iii) HYPOTHETICAL: YES

1249

1250 (iv) ANTI-SENSE: NO

1251

1252 (vi) ORIGINAL SOURCE:

1253 (A) ORGANISM: Lactococcus lactis

1254

1255 (ix) FEATURE:

1256 (A) NAME/KEY: promoter

1257 (B) LOCATION: 4..60

1258 (D) OTHER INFORMATION: /standard_name= "Constitutional
1259 promoter"

1260 /label= Cp4

1261

1262

1263 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

1264

1265 GATGTTTTAG TTTATTCTTG ACACCGTATC GTGCGCGTGA TATAATCGGG ATCCTTAAGA

1266 60

1267

1268

Same

1269 (2) INFORMATION FOR SEQ ID NO: 34:

1270

(i) SEQUENCE CHARACTERISTICS:

--> 1272 (A) LENGTH: 59 base pairs

1273 (B) TYPE: nucleic acid

1274 (C) STRANDEDNESS: double

1275 (D) TOPOLOGY: linear

1276

1277 (ii) MOLECULE TYPE: DNA (genomic)

1278

1279 (iii) HYPOTHETICAL: YES

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PATENT APPLICATION US/09/242,657DATE: 02/09/2000
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INPUT SET: S34681.raw

1280
1281 (iv) ANTI-SENSE: NO
1282
1283 (vi) ORIGINAL SOURCE:
1284 (A) ORGANISM: Lactococcus lactis
1285
1286 (ix) FEATURE:
1287 (A) NAME/KEY: promoter
1288 (B) LOCATION: 4
1289 (D) OTHER INFORMATION: /standard_name= "Constitutional
1290 promoter"
1291 /label= Cp40
1292
1293
1294 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:
1295
1296 CATAGAACAG TTTATTCTTG ACATTGAATA AGAAGGCTGA TATAATAGCC AGTACTGTT
1297 59
1298

same

--> 1299 (2) INFORMATION FOR SEQ ID NO: 35:
1300
1301 (i) SEQUENCE CHARACTERISTICS:
1302 (A) LENGTH: 60 base pairs
1303 (B) TYPE: nucleic acid
1304 (C) STRANDEDNESS: double
1305 (D) TOPOLOGY: linear
1306
1307 (ii) MOLECULE TYPE: DNA (genomic)
1308
1309 (iii) HYPOTHETICAL: YES
1310
1311 (iv) ANTI-SENSE: NO
1312
1313 (vi) ORIGINAL SOURCE:
1314 (A) ORGANISM: Lactococcus lactis
1315
1316 (ix) FEATURE:
1317 (A) NAME/KEY: promoter
1318 (B) LOCATION: 4..60
1319 (D) OTHER INFORMATION: /standard_name= "Constitutional
1320 promoter"
1321 /label= Cp41
1322
1323
1324 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:
1325
1326 CATCCGCAAG TTTATTCTTG ACAGCTGAAT GTAGACGTGG TATAATAGTT AAGTACTGTT
1327 60
1328
1329

same

1330 (2) INFORMATION FOR SEQ ID NO: 36:

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:54

INPUT SET: S34681.raw

1331
1332 (i) SEQUENCE CHARACTERISTICS:
--> 1333 (A) LENGTH: 60 base pairs
1334 (B) TYPE: nucleic acid
1335 (C) STRANDEDNESS: double
1336 (D) TOPOLOGY: linear
1337
1338 (ii) MOLECULE TYPE: DNA (genomic)
1339
1340 (iii) HYPOTHETICAL: YES
1341
1342 (iv) ANTI-SENSE: NO
1343
1344 (vi) ORIGINAL SOURCE:
1345 (A) ORGANISM: Lactococcus lactis
1346
1347 (ix) FEATURE:
1348 (A) NAME/KEY: promoter
1349 (B) LOCATION:4..60
1350 (D) OTHER INFORMATION:/standard_name= "Constitutional
1351 promoter"
1352 /label= Cp42
1353
1354
1355 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:
1356
1357 CATTCGTAAG TTTATTCTTG ACACCTGAGA TGAGGCGTGA TATAATAAAT AAGTACTGTT
1358 60
1359
1360

Name

1361 (2) INFORMATION FOR SEQ ID NO: 37:
1362
1363 (i) SEQUENCE CHARACTERISTICS:
--> 1364 (A) LENGTH: 59 base pairs
1365 (B) TYPE: nucleic acid
1366 (C) STRANDEDNESS: double
1367 (D) TOPOLOGY: linear
1368
1369 (ii) MOLECULE TYPE: DNA (genomic)
1370
1371 (iii) HYPOTHETICAL: YES
1372
1373 (iv) ANTI-SENSE: NO
1374
1375 (vi) ORIGINAL SOURCE:
1376 (A) ORGANISM: Lactococcus lactis
1377
1378 (ix) FEATURE:
1379 (A) NAME/KEY: promoter
1380 (B) LOCATION:4..59
1381 (D) OTHER INFORMATION:/standard_name= "Constitutional
1382 promoter"

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
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INPUT SET: S34681.raw

/label= Cp44

1383
1384
1385
1386
1387
1388
1389
1390

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

CATCGGGTAG TTTATTCTTG ACAATTAAGT AGAGCCTGAT ATAATAGTTC AGTACTGTT
59*same*

1391 (2) INFORMATION FOR SEQ ID NO: 38:

1392
1393
--> 1394
1395
1396
1397
1398

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 59 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

1399
1400
1401
1402
1403
1404
1405
1406
1407

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

(iv) ANTI-SENSE: NO

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Lactococcus lactis

1408
1409
1410
1411
1412
1413
1414
1415
1416

(ix) FEATURE:

- (A) NAME/KEY: promoter
- (B) LOCATION: 4..59
- (C) IDENTIFICATION METHOD: experimental
- (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
/standard_name= "Constitutional promoter"
/label= Cp5

1417
1418
1419
1420
1421

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

CATGGGGGAG TTTATTCTTG ACATCATCTT CGTAGCCTGG TATACTACAT GAGTATGTT
59*same*

1422 (2) INFORMATION FOR SEQ ID NO: 39:

1423
1424
--> 1425
1426
1427
1428
1429
1430
1431
1432
1433

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

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1434 (iv) ANTI-SENSE: NO
1435
1436 (vi) ORIGINAL SOURCE:
1437 (A) ORGANISM: Lactococcus lactis
1438
1439 (ix) FEATURE:
1440 (A) NAME/KEY: promoter
1441 (B) LOCATION:4..60
1442 (D) OTHER INFORMATION:/standard_name= "Constitutional
1443 promoter"
1444 /label= Cp6
1445
1446
1447 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:
1448
1449 CATGTGGGAG TTTATTCTTG ACACAGATAT TTCCGGATGA TATAATAACT GAGTACTGTT
1450 60
1451
1452

same

1453 (2) INFORMATION FOR SEQ ID NO: 40:
1454
1455 (i) SEQUENCE CHARACTERISTICS:
--> 1456 (A) LENGTH: 60 base pairs
1457 (B) TYPE: nucleic acid
1458 (C) STRANDEDNESS: double
1459 (D) TOPOLOGY: linear
1460
1461 (ii) MOLECULE TYPE: DNA (genomic)
1462
1463 (iii) HYPOTHETICAL: YES
1464
1465 (iv) ANTI-SENSE: NO
1466 (vi) ORIGINAL SOURCE:
1467 (A) ORGANISM: Lactococcus lactis
1468
1469 (ix) FEATURE:
1470 (A) NAME/KEY: promoter
1471 (B) LOCATION:4..60
1472 (D) OTHER INFORMATION:/standard_name= "Constitutional
1473 promoter"
1474 /label= Cp7
1475
1476
1477 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:
1478
1479 TATGCGGTAG TTTATTCTTG ACATGACGAG ACAGGTGTGG TATAATGGGT CTAGATTAGG
1480 60
1481
1482

same

1483 (2) INFORMATION FOR SEQ ID NO: 41:
1484

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--> 1485 (i) SEQUENCE CHARACTERISTICS:
1486 (A) LENGTH: 60 base pairs
1487 (B) TYPE: nucleic acid
1488 (C) STRANDEDNESS: double
1489 (D) TOPOLOGY: linear
1490
1491 (ii) MOLECULE TYPE: DNA (genomic)
1492
1493 (iii) HYPOTHETICAL: YES
1494
1495 (iv) ANTI-SENSE: NO
1496
1497 (vi) ORIGINAL SOURCE:
1498 (A) ORGANISM: Lactococcus lactis
1499
1500 (ix) FEATURE:
1501 (A) NAME/KEY: promoter
1502 (B) LOCATION:4..60
1503 (D) OTHER INFORMATION:/standard_name= "Constitutional
1504 promoter"
1505 /label= Cp8
1506
1507
1508 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:
1509
1510 CATTCTTTAG TTTATTCTTG ACAAACGTAT TGAGGACTGA TATAATAGGT GAGTACTGTT
1511 60
1512
1513

1514 (2) INFORMATION FOR SEQ ID NO: 42:
1515
1516 (i) SEQUENCE CHARACTERISTICS:
--> 1517 (A) LENGTH: 60 base pairs
1518 (B) TYPE: nucleic acid
1519 (C) STRANDEDNESS: double
1520 (D) TOPOLOGY: linear
1521
1522 (ii) MOLECULE TYPE: DNA (genomic)
1523
1524 (iii) HYPOTHETICAL: YES
1525
1526 (iv) ANTI-SENSE: NO
1527
1528 (vi) ORIGINAL SOURCE:
1529 (A) ORGANISM: Lactococcus lactis
1530
1531 (ix) FEATURE:
1532 (A) NAME/KEY: promoter
1533 (B) LOCATION:4..60
1534 (D) OTHER INFORMATION:/standard_name= "Constitutional
1535 promoter"
1536 /label= Cp9

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1537
1538
1539
1540
1541
1542
1543
1544

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

CATAGTCTAG TTTATTCTTG ACACGCGGTC CATTGGCTGG TATAATAATT TAGTACTGTT
60*same*

(2) INFORMATION FOR SEQ ID NO: 43:

1545
1546
1547
1548
1549
1550
1551
1552

(i) SEQUENCE CHARACTERISTICS:

- > (A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

1553
1554
1555
1556
1557
1558

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

(iv) ANTI-SENSE: NO

1559
1560
1561

(vi) ORIGINAL SOURCE:

(A) ORGANISM: *Saccharomyces cerevisiae*1562
1563
1564
1565
1566
1567
1568

(ix) FEATURE:

- (A) NAME/KEY: promoter
(B) LOCATION: 8..177
(C) IDENTIFICATION METHOD: experimental
(D) OTHER INFORMATION: /evidence= EXPERIMENTAL
/standard_name= "Yeast promoter"
/label= Yp102

1569
1570
1571

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

1572
1573
1574
1575
1576
1577
1578
1579
1580
1581GAATTCGTGA CTCAAACGGG TGGTCGACGG GTGGTTCCAA TTAATTGGCG TCCCTCTTAT
60AAAGGCGAGG GTACGTGCGA CAATTGGTAG AGCGAGCGGG GCTCTTAAGT GCAAGTGACT
120GCGAACATTT TTTTCGTTTG TTAGAATAAT TCAAGAATCG CTACCAATCA TGGATCC
177*same*

(2) INFORMATION FOR SEQ ID NO: 44:

1582
1583
1584
1585
1586
1587

(i) SEQUENCE CHARACTERISTICS:

- > (A) LENGTH: 182 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

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1588 (D) TOPOLOGY: linear
1589
1590 (ii) MOLECULE TYPE: DNA (genomic)
1591
1592 (iii) HYPOTHETICAL: YES
1593
1594 (iv) ANTI-SENSE: NO
1595
1596 (vi) ORIGINAL SOURCE:
1597 (A) ORGANISM: Saccharomyces cerevisiae
1598
1599 (ix) FEATURE:
1600 (A) NAME/KEY: promoter
1601 (B) LOCATION: 8..181
1602 (C) IDENTIFICATION METHOD: experimental
1603 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1604 /standard_name= "Yeast promoter"
1605 /label= Yp112
1606
1607
1608 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:
1609
1610 GAATTCGTGA CTCACGGCAT CTGATGGTTG ACCATAGTCA GGAACATTGT GCTGGAGTTC
1611 60
1612
1613 CTTGAGGAAT GAGTTATAAA ATGGGAGGTT GCGGCTAATG CCAGGCAGGA GAGGAACCCCT
1614 120
1615
1616 CTTAAGTGCA AGTGACTGCA AACATTTTTT TCGTTTGTTG AATCGCTACC AATCATGGAT
1617 180
1618
1619 CC
1620 182
1621



1622 (2) INFORMATION FOR SEQ ID NO: 45:
1623
1624 (i) SEQUENCE CHARACTERISTICS:
--> 1625 (A) LENGTH: 191 base pairs
1626 (B) TYPE: nucleic acid
1627 (C) STRANDEDNESS: double
1628 (D) TOPOLOGY: linear
1629
1630 (ii) MOLECULE TYPE: DNA (genomic)
1631
1632 (iii) HYPOTHETICAL: YES
1633
1634 (iv) ANTI-SENSE: NO
1635
1636 (vi) ORIGINAL SOURCE:
1637 (A) ORGANISM: Saccharomyces cerevisiae
1638
1639 (ix) FEATURE:

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1640 (A) NAME/KEY: promoter
1641 (B) LOCATION: 8..181
1642 (C) IDENTIFICATION METHOD: experimental
1643 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1644 /standard_name= "Yeast promoter"
1645 /label= Yp13
1646
1647
1648 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:
1649
1650 GAATTCGTGA CTCACTAGGC AGGTCACGTT GGCTCTTCGC GGCGCAGGTT CGTATGCCGC
1651 60
1652
1653 GCCGCCAGGG GCTTTATAAA GGTCGTCTTG GTACAGTTG GGATGGCTCC ACGTTTCGGC
1654 120
1655
1656 TCTTAAGTGC AAGTGACTGC GAACATTTTCG TTTGTTAGAA TAATTCAAGA ATCGCTACCA
1657 180
1658
1659 ATCATGGATC C
1660 191
1661

same

1662 (2) INFORMATION FOR SEQ ID NO: 46:
1663
1664 (i) SEQUENCE CHARACTERISTICS:
--> 1665 (A) LENGTH: 167 base pairs
1666 (B) TYPE: nucleic acid
1667 (C) STRANDEDNESS: double
1668 (D) TOPOLOGY: linear
1669
1670 (ii) MOLECULE TYPE: DNA (genomic)
1671
1672 (iii) HYPOTHETICAL: YES
1673
1674 (iv) ANTI-SENSE: NO
1675
1676 (vi) ORIGINAL SOURCE:
1677 (A) ORGANISM: Saccharomyces cerevisiae
1678
1679 (ix) FEATURE:
1680 (A) NAME/KEY: promoter
1681 (B) LOCATION: 8..167
1682 (C) IDENTIFICATION METHOD: experimental
1683 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1684 /standard_name= "Yeast promoter"
1685 /label= Yp15
1686
1687
1688 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:
1689
1690 GAATTCGTGA CTCAGGGCCG TACTAAGTAG CTTTCGTATG CTATGCGGGG TTTTATAAAT
1691 60

same

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INPUT SET: S34681.raw

1692
1693 CTTTGGGCCA TGGTCTTGCT GGAAACACC TCTCTTAAGT GCAAGTGACT GCGAACATTT
1694 120
1695
1696 TTTTCGTTTG TTAGAATAAT TCAAGAATCG CTACCAATCA TGGATCC
1697 167
1698

1699 (2) INFORMATION FOR SEQ ID NO: 47:
1700
1701 (i) SEQUENCE CHARACTERISTICS:
--> 1702 (A) LENGTH: 191 base pairs
1703 (B) TYPE: nucleic acid
1704 (C) STRANDEDNESS: double
1705 (D) TOPOLOGY: linear
1706
1707 (ii) MOLECULE TYPE: DNA (genomic)
1708
1709 (iii) HYPOTHETICAL: YES
1710
1711 (iv) ANTI-SENSE: NO
1712
1713 (vi) ORIGINAL SOURCE:
1714 (A) ORGANISM: Saccharomyces cerevisiae
1715
1716 (ix) FEATURE:
1717 (A) NAME/KEY: promoter
1718 (B) LOCATION: 8..191
1719 (C) IDENTIFICATION METHOD: experimental
1720 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1721 /standard_name= "Yeast promoter"
1722 /label= Yp154
1723
1724
1725 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:
1726
1727 GAATTCGTGA CTCACCGCTC GGGTGCAGGG CCAAGGCGGC GGAATGTGCG GGGCGTTCTA
1728 60
1729
1730 GCGCAATCGG GGTATAAATT TATAAGGAGG CTGCGGGTGC TAGTTTGTCT AGTTTGACTC
1731 120
1732
1733 TTAAGTGCAA GTGACTGCGA ACATTTTTTCG TTTGTTAGAA TAATTCAAGA ATCGCTACCA
1734 180
1735
1736 ATCATGGATC C
1737 191
1738

1739 (2) INFORMATION FOR SEQ ID NO: 48:
1740
1741 (i) SEQUENCE CHARACTERISTICS:
--> 1742 (A) LENGTH: 195 base pairs

Same

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INPUT SET: S34681.raw

1743 (B) TYPE: nucleic acid
1744 (C) STRANDEDNESS: double
1745 (D) TOPOLOGY: linear
1746
1747 (ii) MOLECULE TYPE: DNA (genomic)
1748
1749 (iii) HYPOTHETICAL: YES
1750
1751 (iv) ANTI-SENSE: NO
1752
1753 (vi) ORIGINAL SOURCE:
1754 (A) ORGANISM: Saccharomyces cerevisiae
1755
1756 (ix) FEATURE:
1757 (A) NAME/KEY: promoter
1758 (B) LOCATION: 8..190
1759 (C) IDENTIFICATION METHOD: experimental
1760 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1761 /standard_name= "Yeast promoter"
1762 /label= Yp18
1763
1764
1765 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:
1766
1767 GAATTCGTGA CTCAGGATTA GCTATGCCGG TTGGGATAAG CGAACAACTG GAGGTGAGAA
1768 60
1769
1770 GCTTTTTGTC AGAATATAAA CCCGTTAGTC AGGGTTTGGT GGGATAGGGG GTACTGTACC
1771 120
1772
1773 TCTTAAGTGC AAGTGACTGC GAACATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT
1774 180
1775
1776 ACCAATCATG GATCC
1777 195
1778

same

1779 (2) INFORMATION FOR SEQ ID NO: 49:
1780
1781 (i) SEQUENCE CHARACTERISTICS:
--> 1782 (A) LENGTH: 179 base pairs
1783 (B) TYPE: nucleic acid
1784 (C) STRANDEDNESS: double
1785 (D) TOPOLOGY: linear
1786
1787 (ii) MOLECULE TYPE: DNA (genomic)
1788
1789 (iii) HYPOTHETICAL: YES
1790
1791 (iv) ANTI-SENSE: NO
1792
1793 (vi) ORIGINAL SOURCE:
1794 (A) ORGANISM: Saccharomyces cerevisiae

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1795
1796 (ix) FEATURE:
1797 (A) NAME/KEY: promoter
1798 (B) LOCATION:8..179
1799 (C) IDENTIFICATION METHOD: experimental
1800 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1801 /standard_name= "Yeast promoter"
1802 /label= Yp183
1803
1804
1805 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:
1806
1807 GAATTCGTGA CTCACTAAGG GTTCGCCATT AACAGAATCG CTGGTAGAAC ATCGGTAGTT
1808 60
1809
1810 AGGCACCCGA GTATAAACAG GCGGACCCCT CACGGATATC AGCTGATAGT GCGAGCCTCA
1811 120
1812
1813 ATGCGAACAT TTTTTCGTT TGTTAGAATA ATTCAAGAAT CGCTACCAAT CATGGATCC
1814 179
1815

1816 (2) INFORMATION FOR SEQ ID NO: 50:
1817
1818 (i) SEQUENCE CHARACTERISTICS:
--> 1819 (A) LENGTH: 195 base pairs
1820 (B) TYPE: nucleic acid
1821 (C) STRANDEDNESS: double
1822 (D) TOPOLOGY: linear
1823
1824 (ii) MOLECULE TYPE: DNA (genomic)
1825
1826 (iii) HYPOTHETICAL: YES
1827
1828 (iv) ANTI-SENSE: NO
1829
1830 (vi) ORIGINAL SOURCE:
1831 (A) ORGANISM: Saccharomyces cerevisiae
1832
1833 (ix) FEATURE:
1834 (A) NAME/KEY: promoter
1835 (B) LOCATION:8..190
1836 (C) IDENTIFICATION METHOD: experimental
1837 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1838 /standard_name= "Yest promoter"
1839 /label= Yp190
1840
1841
1842 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:
1843
1844 GAATTCGTGA CTCAGTATCC ACGGGTGTTT GAGGGCTGGT CGCAGGTTAG CAGGCGAGGG
1845 60
1846

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1847 CGGGTGGTTA CGGCTATAAA TGAGTGTGTTG CAGCCGGGTA CGGGCGTACG AGTAGTGATC
1848 120
1849
1850 TCTTAAATGC AAGTGACTGC GAACATTTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT
1851 180
1852
1853 ACCAATCATG GATCC
1854 195
1855

--> 1856 (2) INFORMATION FOR SEQ ID NO: 51:
1857
1858 (i) SEQUENCE CHARACTERISTICS:
1859 (A) LENGTH: 193 base pairs
1860 (B) TYPE: nucleic acid
1861 (C) STRANDEDNESS: double
1862 (D) TOPOLOGY: linear
1863
1864 (ii) MOLECULE TYPE: DNA (genomic)
1865
1866 (iii) HYPOTHETICAL: YES
1867
1868 (iv) ANTI-SENSE: NO
1869
1870 (vi) ORIGINAL SOURCE:
1871 (A) ORGANISM: Saccharomyces cerevisiae
1872
1873 (ix) FEATURE:
1874 (A) NAME/KEY: promoter
1875 (B) LOCATION: 8..189
1876 (C) IDENTIFICATION METHOD: experimental
1877 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1878 /standard_name= "Yest promoter"
1879 /label= Yp191
1880
1881
1882 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:
1883
1884 GAATTCGTGA CTCAATGCTG CGGGCGGCAG GAGTCTGGTG TAACTTCCCA TTTTGAGTGA
1885 60
1886
1887 AAGACAGACC ATCTATAAAC ATTTGGTGGG CAAAGTGGCC TGGCGGATTT GTTTGGACTC
1888 120
1889
1890 TTAAGTGAAA GTGACTGCGA ACATTTTTTT CGTTTGTTAG AATAATTCAA GAATCGCTAC
1891 180
1892
1893 CAATCATGGA TCC
1894 193
1895

same

1896 (2) INFORMATION FOR SEQ ID NO: 52:
1897

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INPUT SET: S34681.raw

--> 1898 (i) SEQUENCE CHARACTERISTICS:
1899 (A) LENGTH: 166 base pairs
1900 (B) TYPE: nucleic acid
1901 (C) STRANDEDNESS: double
1902 (D) TOPOLOGY: linear
1903
1904 (ii) MOLECULE TYPE: DNA (genomic)
1905
1906 (iii) HYPOTHETICAL: YES
1907
1908 (iv) ANTI-SENSE: NO
1909
1910 (vi) ORIGINAL SOURCE:
1911 (A) ORGANISM: Saccharomyces cerevisiae
1912
1913 (ix) FEATURE:
1914 (A) NAME/KEY: promoter
1915 (B) LOCATION: 8..166
1916 (C) IDENTIFICATION METHOD: experimental
1917 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1918 /standard_name= "Yeast promoter"
1919 /label= Yp192
1920
1921
1922 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:
1923
1924 GAATTCGTGA CTCACTTAAG GCTACTGCGG AAGTTTAGAT CTAAGGTCGG AAATAATTTA
1925 60
1926
1927 GAAAATTACG ACATTATAAA TAGCGGAGAG GCCAGGTGAT GGGCACCATT GTGGGGGGGC
1928 120
1929
1930 TCTTAATTGT TAGAATAATT CAAGAATCGC TACCAATCAT GGATCC
1931 166
1932

1933 (2) INFORMATION FOR SEQ ID NO: 53:
1934
1935 (i) SEQUENCE CHARACTERISTICS:
--> 1936 (A) LENGTH: 195 base pairs
1937 (B) TYPE: nucleic acid
1938 (C) STRANDEDNESS: double
1939 (D) TOPOLOGY: linear
1940
1941 (ii) MOLECULE TYPE: DNA (genomic)
1942
1943 (iii) HYPOTHETICAL: YES
1944
1945 (iv) ANTI-SENSE: NO
1946
1947 (vi) ORIGINAL SOURCE:
1948 (A) ORGANISM: Saccharomyces cerevisiae
1949

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INPUT SET: S34681.raw

1950 (ix) FEATURE:
1951 (A) NAME/KEY: promoter
1952 (B) LOCATION:8..190
1953 (C) IDENTIFICATION METHOD: experimental
1954 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1955 /standard_name= "Yeast promoter"
1956 /label= Yp212
1957
1958
1959 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:
1960
1961 GAATTCGTGA CTCAGTCGCC CGCAAGATGG GATGGTGCAT TTAAACACC CGAATTATAC
1962 60
1963
1964 TCGTCAACTT ATAGTATAAA CGGAACGCGA CGATACGTTT TAGTTTTTCGG CGAAGTCGAC
1965 120
1966
1967 TCTTAAGTGC AAGTGACTGC GAACATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT
1968 180
1969
1970 ACCAATCATG GATCC
1971 195
1972

same

1973 (2) INFORMATION FOR SEQ ID NO: 54:
1974
1975 (i) SEQUENCE CHARACTERISTICS:
--> 1976 (A) LENGTH: 188 base pairs
1977 (B) TYPE: nucleic acid
1978 (C) STRANDEDNESS: double
1979 (D) TOPOLOGY: linear
1980
1981 (ii) MOLECULE TYPE: DNA (genomic)
1982
1983 (iii) HYPOTHETICAL: YES
1984
1985 (iv) ANTI-SENSE: NO
1986
1987 (vi) ORIGINAL SOURCE:
1988 (A) ORGANISM: Saccharomyces cerevisiae
1989
1990 (ix) FEATURE:
1991 (A) NAME/KEY: promoter
1992 (B) LOCATION:8..183
1993 (C) IDENTIFICATION METHOD: experimental
1994 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1995 /standard_name= "Yeast promoter"
1996 /label= Yp24
1997
1998
1999 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:
2000
2001 GAATTCGTAC TCACGACAGC GTTATGACTT CGAGGACCAG CTACTTCCGG TCGCGTACTA

same

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same

2002 60
2003
2004 GTTTTACCT GTATAACTT TGCTACCGCT GGGCCTTGGT GGTGCTGTCC CGCTCTTAAG
2005 120
2006
2007 TGCAAGTGAC TCGAACATT TTTTTCGTTT GTTACAATAA TTCAAGAATC GCTACCAATC
2008 180
2009
2010 ATGGATCC
2011 188
2012

--> 2013 (2) INFORMATION FOR SEQ ID NO: 55:
2014
2015 (i) SEQUENCE CHARACTERISTICS:
2016 (A) LENGTH: 195 base pairs
2017 (B) TYPE: nucleic acid
2018 (C) STRANDEDNESS: double
2019 (D) TOPOLOGY: linear
2020
2021 (ii) MOLECULE TYPE: DNA (genomic)
2022
2023 (iii) HYPOTHETICAL: YES
2024
2025 (iv) ANTI-SENSE: NO
2026
2027 (vi) ORIGINAL SOURCE:
2028 (A) ORGANISM: Saccharomyces cerevisiae
2029
2030 (ix) FEATURE:
2031 (A) NAME/KEY: promoter
2032 (B) LOCATION: 8..190
2033 (C) IDENTIFICATION METHOD: experimental
2034 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
2035 /standard_name= "Yeast promoter"
2036 /label= Yp435
2037
2038
2039 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:
2040
2041 GAATTCGTGA CTAAATGGAT AAGGTTATCG CCATCACGGA GTCTTCTCTC ACGTCTGGAG
2042 60
2043
2044 CAGAGGCTAG ACCTTATAAA TTATACATGG TGGGAGAGGC GATAGTCTTT AGAGACGTGC
2045 120
2046
2047 TCTTAAGTGC AAGTGACTGC GAACATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT
2048 180
2049
2050 ACCAATCATG GATCC
2051 195
2052

same

2053 (2) INFORMATION FOR SEQ ID NO: 56:

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INPUT SET: S34681.raw

2054
2055 (i) SEQUENCE CHARACTERISTICS:
--> 2056 (A) LENGTH: 189 base pairs
2057 (B) TYPE: nucleic acid
2058 (C) STRANDEDNESS: double
2059 (D) TOPOLOGY: linear
2060
2061 (ii) MOLECULE TYPE: DNA (genomic)
2062
2063 (iii) HYPOTHETICAL: YES
2064
2065 (iv) ANTI-SENSE: NO
2066
2067 (vi) ORIGINAL SOURCE:
2068 (A) ORGANISM: Saccharomyces cerevisiae
2069
2070 (ix) FEATURE:
2071 (A) NAME/KEY: promoter
2072 (B) LOCATION: 8..184
2073 (C) IDENTIFICATION METHOD: experimental
2074 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
2075 /standard_name= "Yeast promoter"
2076 /label= Yp68
2077
2078
2079 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:
2080
2081 GAATTCGTGA CTCACAAGAA TGTGGGCGGG TCGTTAACT GAGCCTGGAC ACCTTGGCTG
2082 60
2083
2084 CGTCGCTTTC GTATAAAGAT CTTAGAGCTG TGGAGTCTGG GTCGAGTGGC CAGCTCTTAA
2085 120
2086
2087 ATGCAAGTGA CTGCGAACAT TTTTTTCGTT TGTTAGAATA ATTCAAGAAT CGCTACCAAT
2088 180
2089
2090 CATGGATCC
2091 189
2092

Same

2093 (2) INFORMATION FOR SEQ ID NO: 57:
2094
2095 (i) SEQUENCE CHARACTERISTICS:
--> 2096 (A) LENGTH: 195 base pairs
2097 (B) TYPE: nucleic acid
2098 (C) STRANDEDNESS: double
2099 (D) TOPOLOGY: linear
2100
2101 (ii) MOLECULE TYPE: DNA (genomic)
2102
2103 (iii) HYPOTHETICAL: YES
2104
2105 (iv) ANTI-SENSE: NO

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:54:00

INPUT SET: S34681.raw

2106
2107 (vi) ORIGINAL SOURCE:
2108 (A) ORGANISM: Saccharomyces cerevisiae
2109
2110 (ix) FEATURE:
2111 (A) NAME/KEY: promoter
2112 (B) LOCATION: 8..190
2113 (C) IDENTIFICATION METHOD: experimental
2114 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
2115 /standard_name= "Yeast promoter"
2116 /label= Yp89
2117
2118
2119 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:
2120
2121 GAATTCGTGA CTCCTCGGA AGATTGGGTT TACGATTAGG ATGGCGCGGC AGAACCGGGG
2122 60
2123
2124 GGGATTCCCT TCTATATAAA GGGTTCCGAT ACTACGTGCT GCGGACGGCC GATCGAGTTA
2125 120
2126
2127 TCTTAAGTGC AAGTGACTGC GAAAATTTTT TTCGTTTGTT AGAATAATTC AAGAATCGCT
2128 180
2129
2130 ACCAATCATG GATCC
2131 195
2132

2133 (2) INFORMATION FOR SEQ ID NO: 58:
2134
2135 (i) SEQUENCE CHARACTERISTICS:
--> 2136 (A) LENGTH: 176 base pairs
2137 (B) TYPE: nucleic acid
2138 (C) STRANDEDNESS: double
2139 (D) TOPOLOGY: linear
2140
2141 (ii) MOLECULE TYPE: DNA (genomic)
2142
2143 (iii) HYPOTHETICAL: YES
2144
2145 (iv) ANTI-SENSE: NO
2146
2147 (vi) ORIGINAL SOURCE:
2148 (A) ORGANISM: Saccharomyces cerevisiae
2149
2150 (ix) FEATURE:
2151 (A) NAME/KEY: promoter
2152 (B) LOCATION: 8..171
2153 (C) IDENTIFICATION METHOD: experimental
2154 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
2155 /standard_name= "Yeast promoter"
2156 /label= Yp96
2157

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:54:00**INPUT SET: S34681.raw**

2158

2159

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

2160

2161 GAATTCGTGA CTCATCTAGT GAGAGGAGCC GTGGTATCTT GTGTCACCAC CAGGGGAAAA

2162 60

2163

2164 TAATGGCAGG GGTGTATAAA TGGTCGAGTA GTCGCGACCC ACGCTGCAAG GCAAGGAACT

2165 120

2166

2167 CTTAAATTTT TTTCGTTTGT TAGAATAATT CAAGAATCGC TACCAATCAT GGATCC

2168 176

2169

same